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EXAMINER

PHUNG, LUAT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/530,758	Applicant(s) LI ET AL.	
	Examiner LUAT PHUNG	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/22/2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's arguments filed on May 22, 2009 have been fully considered but they are not deemed to be persuasive.
2. Claims 1 and 3-14 are pending.
3. Claims 1 and 11 have been amended.
4. Claim 2 is canceled.
5. Claims 1 and 3-14 are rejected.
6. On page 7, applicant's representative argues that:

... Christie still does not teach or suggest interworking between two heterogeneous broadband networks. A network consisting of one device is a homogeneous network.

On page 8, applicant's representative argues that:

Never does one interworking unit of Christie create one port for one communication device and a second port for the other communication device. The interworking units disclosed by Christie always convert the protocol of the communication device to the ATM protocol.

Examiner respectfully disagrees.

As a recap of the rejection of claim 1, Christie discloses a method of interworking teleservice between two broadband heterogeneous networks, each heterogeneous network having at least one telephone call device, and at least one media gateway (Fig. 4, elements media processor 310, interworking unit 204; col. 7, line 10 to col. 8, line 50;

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broadband-integrated digital services network (B-ISDN), SONET/SDH, ATM, “telecommunication systems have a number of communication devices”, “communications devices, such as telephones,” “can be, for example, customer premises equipment (CPE)”, “use broadband protocols, such as broadband-integrated digital services network (B-ISDN)”, “high speed electrical/optical transmission protocols also are used by communications devices”; SONET and SDH “are examples of high speed electrical/optical protocols”, ATM “is being used in conjunction with SONET and SDH to provide broadband call switching and call transport for telecommunication services”; col. 10, line 15; “ATM network is a high-speed transfer network”).

Specifically Christie discloses interworking between a local device such as B-ISDN, a broadband protocol, in the local network and an ATM device in a different broadband network.

7. On page 9, applicant’s representative argues that:

Christie does not teach or suggest each and every limitation of claim 11. As discussed with respect to claim 1, Christie does not disclose interworking between two broadband heterogeneous networks.

Furthermore, Christie does not teach or suggest "wherein the media interworking equipment implements teleservice interworking between the heterogeneous networks by establishing a first internal media port within the media interworking equipment that corresponds to a caller party equipment in one heterogeneous network and a second

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internal media port within the media interworking equipment that corresponds to a called party equipment in the other heterogeneous network" (emphasis added).

Examiner respectfully disagrees.

As a recap of the rejection of claim 1, Christie discloses creating a first internal media port that corresponds to the caller party equipment (connection to local device per Fig. 2 and col. 11, line 66 to col. 12, line 67) and a second internal media port that corresponds to the called party equipment and establishing a mapping between the first and second internal media ports; (Fig. 2 and col. 11, line 66 to col. 12, line 67; connection from local TDM device to ATM device, i.e., mapping between TDM and ATM ports; user communication device transmitting user communications in an ESF or SF format, other TDM formats over DS level transmission lines, i.e., ports, or SONET or SDH, an ISDN format or a GR-303 format; converter interworking between signaling formats or user communication formats)

In Christie, interworking is established by communications and processing in the interworking unit, the signaling processor and the media processor, and a connection is established between a local device and an ATM device, both of which have interfaces to the telecommunication system. It is noted that it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1993).

8. On page 9, applicant's representative argues that:

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Modaressi does not disclose how the communication is made between a device in the "new" IP/ATM and a device in the "old" PSTN/IN networks, much less interworking between two broadband heterogeneous networks.

Furthermore, Modaressi does not disclose "creating, within the media interworking equipment and based on a command from the call control equipment, a first internal media port that corresponds to the caller party equipment and a second internal media port that corresponds to the called party equipment and establishing a mapping between the first and second internal media ports" (emphasis added).

Thus, Sibille does not teach or suggest creating, within the media interworking equipment, a first internal media port corresponding to a caller party equipment and a second internal media port corresponding to a called party equipment and establishing a mapping between the first and second internal media ports, much less the limitations of claim 1.

Examiner respectfully disagrees.

As a recap of the rejection of claim 1, Modarressi clearly discloses IP/ATM as a broadband network. Assuming, *arguendo*, that Modarressi does not disclose PSTN/IN as a broadband network. Christie from an analogous art discloses the PSTN/IN comprising different broadband networks including B-ISDN and SONET/SDH (col. 7, lines 59 to col. 8, lines 18; "broadband", "high speed"). Thus it would have been obvious to one of ordinary skill in the art to interwork Modarressi's IP/ATM network with Christie's B-ISDN or SONET/SDH network in order to provide broadband services for the next-generation networks (NGN).

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Modarressi discloses creating, within the media interworking equipment and based on a command from the call control equipment, a first internal media port that corresponds to the caller party equipment and a second internal media port that corresponds to the called party equipment; (Fig. 4; page 101, left col., last three bullet items).

Sibille from the same or similar fields of endeavor discloses establishing a mapping between the first and second media ports and transmitting media streaming based on the mapping between the first and second media ports (Fig. 2, elements 204, 206, 208; Fig. 3-5; para. 33, 34, 42-48, 55-57, 60-62, 67; setting up two-way ATM-TDM interworking bearer path; translating SDP port into ATM port; mapping IP port in SDP media data to EECID ATM port; transmitting to bearer connection; Vertical Interface Translation Function (VITF) in media gateway performing mapping and translating). Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine Modarressi's NGN architecture with Sibille's VITF by implementing mapping and translating function on the trunk gateway/media gateway. The motivation for doing so would have been to establish connections between different networks.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 1, 3, 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christie, et al (US 6,002,689).

Regarding claim 1, Christie discloses a method of interworking teleservice between two broadband heterogeneous networks, each heterogeneous network having at least one telephone call device, and at least one media gateway (Fig. 4, elements media processor 310, interworking unit 204; col. 7, line 10 to col. 8, line 50; broadband-integrated digital services network (B-ISDN), SONET/SDH, ATM, "telecommunication

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systems have a number of communication devices”, “communications devices, such as telephones,” “can be, for example, customer premises equipment (CPE)”, “use broadband protocols, such as broadband-integrated digital services network (B-ISDN)”, “high speed electrical/optical transmission protocols also are used by communications devices”; SONET and SDH “are examples of high speed electrical/optical protocols”, ATM “is being used in conjunction with SONET and SDH to provide broadband call switching and call transport for telecommunication services”; col. 10, line 15; “ATM network is a high-speed transfer network”), the heterogeneous networks being connected by a call control equipment (signaling processor per Fig. 2) and a media interworking equipment (interworking unit per Fig. 2), the call control equipment performing signaling interworking and controlling a call between the heterogeneous networks, the media interworking equipment being used for mapping media ports of the heterogeneous networks and transmitting media streaming under the control of the call control equipment (abstract; col. 7, line 59 to col. 8, line 2; col. 8, lines 40-50; col. 10, lines 11-37; col. 11, lines 24-35; the interface system interworks calls between the ATM network and the local network; col. 9, lines 20-22; “calls can be connected through communication devices that have different resource needs or different protocol requirements”), the method comprising:

receiving a call request coming from a caller party equipment in one heterogeneous network by the call control equipment, the caller party equipment comprising a telephone call device; (Fig. 2; col. 7, line 49; communication devices such as telephones; col. 11, line 50 to col. 12, line 67; “local communication device is any

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communication device that operates in the local network” and can be a CPE, which can be a telephone; local device initiating a call in TDM format, call signaling transmitted to signaling processor)

determining by the call control equipment whether the call request of the caller party equipment is a call between the heterogeneous networks; (Fig. 2; col. 10, lines 63+; “the interface system operates to accept call signaling and user communications from either the ATM network or the local network”; col. 11, line 66 to col. 12, line 67; signaling processing determining that call is to be connected to ATM communication device, i.e., between TDM and ATM networks)

if the call request is the call between the heterogeneous networks, creating a connection between the media interworking equipment and the caller party equipment and a connection between the media interworking equipment and a called party equipment in the other heterogeneous network under the control of the call control equipment, (Fig. 2; col. 11, line 50 to col. 12, line 67; “ATM communication device signaling processor sending control message to interworking unit identifying connection to ATM device (from local TDM device); interworking unit converting user communications) wherein creating the connections comprises:

creating a media port within the caller party equipment; (Fig. 2 and col. 11, line 66 to col. 12, line 67; connecting from interworking unit to local device)

creating a media port within the called party equipment; (Fig. 2 and col. 11, line 66 to col. 12, line 67; connecting from interworking unit to ATM device)

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creating, within the media interworking equipment and based on a command from the call control equipment (Fig. 2, signaling processor 202; col. 12, lines 39+; “signaling processor sends a control message to the interworking unit”), a first internal media port that corresponds to the caller party equipment (connection to local device per Fig. 2 and col. 11, line 66 to col. 12, line 67) and a second internal media port that corresponds to the called party equipment and establishing a mapping between the first and second internal media ports; (Fig. 2 and col. 11, line 66 to col. 12, line 67; connection from local TDM device to ATM device, i.e., mapping between TDM and ATM ports; user communication device transmitting user communications in an ESF or SF format, other TDM formats over DS level transmission lines, i.e., ports, or SONET or SDH, an ISDN format or a GR-303 format; converter interworking between signaling formats or user communication formats) and

transmitting media streaming by the media interworking equipment transmitting media streaming based on the mapping between the first and second [internal] media ports to realize media interworking; (col. 11, line 66 to col. 12, line 67; user communications being transported to ATM communication device)

Christie discloses the heterogeneous broadband networks B-ISDN, SONET/SDH and ATM as recited above, but does not explicitly disclose them having various different address planning and different network structures. However it is well known in the art at the time of the invention that the B-ISDN, SONET/SDH and ATM networks all have different address planning (e.g., phone numbers following North-American Numbering Plan (NANP), global titles, point codes, IP addresses, URLs, virtual path and virtual

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circuit identifications) and different network structures (e.g., class 4 switches, class 5 switches, SSP, STP, core switches, edge switches). Thus it would have been obvious to one of ordinary skill in the art at the time of invention to implement the networks with the addressing plans and structures according to the different protocols in order to provide standard compatibility and service diversity.

Regarding claim 3, Christie further discloses wherein, before the step of transmitting media streaming, the method further comprises:

negotiating a media capability with the called party equipment by the caller party equipment; (col. 18, lines 20-53; col. 19, lines 52-64)

translating the format of the media streaming by the media interworking equipment if the media capability of the caller party equipment and a media capability of the called party equipment do not match. (col. 18, lines 20-53; col. 19, lines 52-64)

Regarding claim 4, Christie further discloses wherein, the step of translating the format of the media streaming comprises:

recovering incoming media streaming into original media streaming; (col. 18, lines 20-53; col. 19, lines 52-64)

re-encoding and compressing the original media streaming according to a desired format of the media streaming. (col. 18, lines 20-53; col. 19, lines 52-64)

Claim 11 is a system claim corresponding to the method claim 1, and is thus rejected under the same reason set forth in the rejection of claim 1.

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13. Claims 1 and 11, in an alternative rejection, and claims 5-10 and 12-14 are rejected under U.S.C. 103(a) as being unpatentable over Modarressi, et al ("Control and Management in Next-Generation Networks: Challenges and Opportunities", IEEE Communications Magazine, October 2000; hereinafter Modarressi) in view of Christie, et al, and further in view of Sibille, et al (US Pub. 2004/0190531).

Regarding claim 1, Modarressi discloses a method of interworking teleservice between two broadband heterogeneous networks, each heterogeneous network having at least one telephone call device, and at least one media gateway (IP and ATM networks per Fig. 4; next-generation network NGN including broadband services per page 96, last two para., page 97, first two para. and page 98, right col., first para.), the heterogeneous networks being connected by a call control equipment (MGC/CA/Softswitch per Fig. 4) and a media interworking equipment (Trunk gateway/media gateway per Fig. 4), the call control equipment performing signaling interworking and controlling a call between the heterogeneous networks (IP and ATM networks per Fig. 4), the media interworking equipment being used for mapping media ports of the heterogeneous networks and transmitting media streaming under the control of the call control equipment (page 100, right col.), the method comprising:

receiving a call request coming from a caller party equipment by the call control equipment in one heterogeneous network, the caller party equipment comprising a telephone call device; (page 101, left col., first bullet item)

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determining by the call control equipment whether the call request of the caller party equipment is a call between the heterogeneous networks; (page 101, left col., second bullet item)

if the call request is the call between the heterogeneous networks, creating a connection between the media interworking equipment and the caller party equipment (Trunk gateway/signaling gateway and left Residential Gateway per Fig. 4) and a connection between the media interworking equipment and a called party equipment in the other heterogeneous network (Trunk gateway/signaling gateway and PSTN/AIN/SS7 cloud per Fig. 4) under the control of the call control equipment (MGC/CA/Softswitch per Fig. 4) (call between packet network, e.g., IP, and PSTN per Fig. 4; page 101, left col., last three bullet items; last para. of left col. to first para. of right col.) wherein creating the connections comprises:

creating a media port within the caller party equipment; (Fig. 4; page 101, left col., last three bullet items)

creating a media port within the called party equipment; (Fig. 4; page 101, left col., last three bullet items)

creating, within the media interworking equipment and based on a command from the call control equipment, a first internal media port that corresponds to the caller party equipment and a second internal media port that corresponds to the called party equipment; (Fig. 4; page 101, left col., last three bullet items) and

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transmitting media streaming by the media interworking equipment to realize media interworking. (page 101, left col., last three bullet items; last para. of left col. to first para. of right col.)

Modarressi discloses the heterogeneous broadband networks, PSTN/IN and IP/ATM as recited above, but does not explicitly disclose them having various different address planning and different network structures. However it is well known in the art at the time of the invention that these networks have different address planning (e.g., phone numbers following North-American Numbering Plan (NANP), global titles, point codes, IP addresses, URLs, virtual path and virtual circuit identifications) and different network structures (e.g., class 4 switches, class 5 switches, SSP, STP, core switches, edge switches). Thus it would have been obvious to one of ordinary skill in the art at the time of invention to implement the networks with the addressing plans and structures according to the different protocols in order to provide standard compatibility and service diversity.

Modarressi clearly discloses IP/ATM as a broadband network. Assuming, *arguendo*, that Modarressi does not disclose PSTN/IN as a broadband network. Christie from an analogous art discloses the PSTN/IN comprising different broadband networks including B-ISDN and SONET/SDH (col. 7, lines 59 to col. 8, lines 18; “broadband”, “high speed”). Thus it would have been obvious to one of ordinary skill in the art to interwork Modarressi’s IP/ATM network with Christie’s B-ISDN or SONET/SDH network in order to provide broadband services for the next-generation networks (NGN).

Modarressi does not explicitly disclose establishing a mapping between the first and second media ports and transmitting media streaming based on the mapping between the first and second media ports. However Modarressi discloses the trunk gateway/media gateway being connected to IP, ATM and PSTN networks and providing bearer connections to users (Fig. 4; page 100, right col.). It is obvious to one of ordinary skill in the art at the time of the invention that the gateway must support interworking to enable connectivity among the different bearer interfaces (IP, ATM, PSTN). Furthermore Modarressi discloses complete separation of bearer/connection control (i.e., media interworking) from call/session control (i.e., call control). Sibille from the same or similar fields of endeavor discloses establishing a mapping between the first and second media ports and transmitting media streaming based on the mapping between the first and second media ports (Fig. 2, elements 204, 206, 208; Fig. 3-5; para. 33, 34, 42-48, 55-57, 60-62, 67; setting up two-way ATM-TDM interworking bearer path; translating SDP port into ATM port; mapping IP port in SDP media data to EECID ATM port; transmitting to bearer connection; Vertical Interface Translation Function (VITF) in media gateway performing mapping and translating). Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine Modarressi's NGN architecture with Sibille's VITF by implementing mapping and translating function on the trunk gateway/media gateway. The motivation for doing so would have been to establish connections between different networks.

Alternatively, Christie from the same or similar fields of endeavor discloses establishing a mapping between the first and second media ports and transmitting

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media streaming based on the mapping between the first and second media ports. (Fig. 2 and col. 11, line 66 to col. 12, line 67) Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine Modarressi's NGN architecture with Christie's interworking capability by implementing interworking functions on the trunk gateway/media gateway. The motivation for doing so would have been to establish connections between different networks.

Regarding claim 5, Modarressi further discloses wherein, the call control equipment sends and receives control signaling via H.248 or MGCP protocol. (Megaco/H.248 per Fig. 4)

Regarding claim 6, Modarressi further discloses wherein at least two call control equipments (two MGCs per Fig. 4) are connected between the heterogeneous networks, and each of the at least two call control equipments controls a different party equipment, and wherein the method further comprises:

transmitting the call request by the call control equipment that controls the caller party equipment to the call control equipment that controls the called party equipment; (SIP-T per Fig. 4; page 100, right col.) and

designating one of the at least two call control equipments to control the media interworking equipment. (page 100, right col.)

Regarding claim 7, Modarressi further discloses wherein the signaling is transmitted between the call control equipments via a Session Initiation Protocol for Telephones or Bearer Independent Call Control Protocol. (page 102, left col., first two para.)

Regarding claim 8, Modarressi further discloses wherein at least two media interworking equipments are connected between the heterogeneous networks, and each of the at least two media interworking equipments is connected to a different network (Fig. 4, Residential Gateways (RW) in IP and ATM networks), and wherein the method further comprises:

establishing a media connection between the media interworking equipment (Trunk Gateway/Media Gateway per Fig. 4) connected to the caller party equipment's network (connection to left RW in IP network per Fig. 4) and the media interworking equipment connected to the called party equipment's network (connection to right RW in ATM network).

Regarding claim 9, Modarressi further discloses wherein one of the heterogeneous networks is a H.323 network which includes a gate keeper and a H.323 gateway; and the connection between the media interworking equipment and a party equipment in the H.323 network is established by the call control equipment and the gate keeper controlling the H.323 gateway. (page 102, left col., first two para.)

Examiner takes official notice that a gate keeper and H.323 gateway are inherent capabilities of a H.323 network according to standards specifications.

Regarding claim 10, Modarressi further discloses wherein one of the heterogeneous networks is a SIP network which includes a SIP proxy and a SIP user agent; and the connection between the media interworking equipment and a party equipment in the SIP network is established by the call control equipment and the SIP proxy controlling the SIP user agent. (page 102, left col., first two para.) Examiner takes

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official notice that a SIP proxy and a SIP user agent are inherent capabilities of a SIP network according to standards specifications.

Regarding claim 11, Modarressi further discloses a system of interworking teleservice between broadband heterogeneous networks, comprising:

a call control equipment (MGC/CA/Softswitch per Fig. 4) which is connected between the heterogeneous networks and configured to process a call request between the heterogeneous networks and transmit signaling; (page 100, right col.)

a media interworking equipment (Trunk gateway/media gateway per Fig. 4) which is connected between the heterogeneous networks and configured to transmit media streaming between the heterogeneous networks; (page 100, right col.)

wherein the media interworking equipment implements teleservice interworking between the heterogeneous networks by establishing a media port that corresponds to a caller party equipment in one heterogeneous network and a media port that corresponds to a called party equipment in the other heterogeneous network. (page 100, right col.; page 101)

Modarressi does not explicitly disclose establishing a mapping between media ports of the heterogeneous networks under the control of the call control equipment. However Modarressi discloses the trunk gateway/media gateway being connected to IP, ATM and PSTN networks and providing bearer connections to users (Fig. 4; page 100, right col.). It is obvious to one of ordinary skill in the art at the time of the invention that the gateway must support interworking to enable connectivity among the different bearer interfaces (IP, ATM, PSTN). Furthermore Modarressi discloses complete

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separation of bearer/connection control (i.e., media interworking) from call/session control (i.e., call control).

Sibille from the same or similar fields of endeavor discloses establishing a mapping between media ports of the heterogeneous networks under the control of the call control equipment (Fig. 2, elements 204, 206, 208; Fig. 3-5; para. 33, 34, 42-48, 55-57, 60-62, 67; setting up two-way ATM-TDM interworking bearer path; translating SDP port into ATM port; mapping IP port in SDP media data to EECID ATM port; Vertical Interface Translation Function (VITF) in media gateway performing mapping and translating). Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine Modarressi's NGN architecture with Sibille's VITF by implementing mapping and translating function on the trunk gateway/media gateway. The motivation for doing so would have been to establish connections between different networks.

Regarding claim 12, Modarressi further discloses wherein, the media interworking equipment comprises:

a protocol module for receiving control data from the call control equipment, creating the media ports and establishing correspondence relationship of the media ports; (page 101) and

a media transmitting and mapping unit for transmitting the media streaming that comes into the media interworking equipment according to the established correspondence relationship. (page 101)

Regarding claim 13, Modarressi further discloses wherein, the media interworking equipment further comprises:

a media translating unit for processing format translation for the media streaming when media capabilities or formats of the caller party equipment and the called party equipment do not match. (page 101)

Regarding claim 14, Modarressi further discloses wherein, the call control equipment comprises:

a protocol adapter for receiving and sending control data and receiving the call request coming from the caller party equipment; (page. 101)

a call server for controlling the call request between the heterogeneous networks. (application server per Fig. 4; page 101)

14. Claim 8, in an alternative rejection, is rejected under U.S.C. 103(a) as being unpatentable over Christie, et al in view of Williams ("The Softswitch Advantage", IEE Review, July 2002).

Regarding claim 8, Christie discloses all of the subject matter as previously recited in this office action except wherein at least two media interworking equipments are connected between the heterogeneous networks, and each of the at least two media interworking equipments is connected to a different network, and wherein the method further comprises:

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establishing a media connection between the media interworking equipment connected to the caller party equipment's network and the media interworking equipment connected to the called party equipment's network.

Williams from the same or similar fields of endeavor discloses two or more media gateways are connected between a public packet telephone network (PPTN) and a public packet mobile network (PPMN), whereas a media connection is established between the media gateway in the PPTN (node 4 per Fig. 2) and the radio access network media gateway in the PPMN (node 5 per Fig. 2; page 28; page 29, left col.). Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine Christie's interworking system with Williams' support of multiple media gateways by configuring two or more media gateways between two networks. The motivation for combining would have been to enable growth and maintenance of the networks.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see form 892).

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUAT PHUNG whose telephone number is (571) 270-3126. The examiner can normally be reached on M-Th 7:30 AM - 5:00 PM, F 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/L. P./

Examiner, Art Unit 2416

/Ricky Ngo/

Supervisory Patent Examiner, Art Unit 2416